

REMARKS

The Office Action states that amended claim 1 is directed to an invention that is independent and distinct from the invention originally claimed because the "star-shaped crown" was not part of the originally elected species. Applicant traverses the restriction requirement because the "star-shaped crown" was not part of any other non-elected species and simply represents an additional limitation to the elected species. Nonetheless, in an effort to move the prosecution forward, Applicant has removed the "star-shaped crown" language from claim 1. The restriction requirement is considered moot.

As for the information disclosure statement missing the statement page, Applicant's transmittal confirmation sheet shows seven pages received by the USPTO. Applicant will re-transmit the information disclosure statement in question.

The Office Action objects to the drawings because claims 13 and 23 (and presumably claim 1 as presently amended) recite "at least ten sets of facets." Applicant has amended the claims to recite "at least five sets of facets," which is supported by FIG. 5. Applicants request that the objection to the drawings be withdrawn.

Claim 3 is properly objected to as it depends from a cancelled claim. Applicant has amended claim 3 to depend from claim 1.

The Office Action rejects claims 13-16 and 23-25 under 35 U.S.C. 103(a) as being unpatentable over Stafford (US patent D370642). Applicant has amended claims 13 and 23 to more clearly distinguish over the prior art of record.

Amended claim 13 recites a cut gemstone has a pavilion

extending from a girdle to a culet. The girdle extends no further than a widest circumference of the crown and the pavilion extends no further than a widest circumference of the girdle. A crown in the form of a symmetrical hemisphere is formed from at least five sets of facets between the girdle and an apex of the crown including a first set of facets disposed above the girdle and a second set of facets disposed between the first set of facets and an apex of the crown. The first set of facets is cut at a first angle with respect to a reference line which is tangential to the apex of the crown. The second set of facets is cut at a second angle with respect to the reference line which is less than the first angle. Each facet within the first and second sets of facets is hexagonal in shape with opposing corners of the hexagon nested between adjacent facets. Support for the hexagonal shape with opposing corners of the hexagon nested between adjacent facets is found in FIG. 5.

The Stafford reference does not teach or suggest a crown in the form of a symmetrical hemisphere. Applicant submits that one of ordinary skill in the art would not identify the Stafford cut as a hemisphere (half circle). Nonetheless, Stafford certainly does not show at least five sets of facets between the girdle and an apex of the crown. Applicants traverse the Examiner's obviousness argument in view of the number of sets of facets. As discussed in paragraph [0036] of the specification, the curved contour of the symmetrical hemisphere-shaped crown requires a larger overall crown area, more facets, and more angles in order to receive more light which is reflected by the diamond to create greater brilliance and scintillation. A sufficient number of sets of facts, i.e. at least five, is needed to form the symmetrical hemisphere. The Stafford cut is not a

symmetrical hemisphere formed from at least five sets of facets. Finally, the facets in Stafford are not hexagonal in shape with opposing corners of the hexagon nested between adjacent facets.

Claim 13 is believed to patentably distinguish over the Stafford reference. Claims 14-16, 18-19, 21, and 55 are believed to be in condition for allowance as each is dependent from an allowable base claim.

As for claim 23, the amended claim recites a cut gemstone comprising a pavilion having a plurality of facets disposed from a girdle to a culet. A dome-shaped crown is disposed above the girdle. The girdle extends no further than a widest circumference of the dome-shaped crown and the pavilion extends no further than a widest circumference of the girdle. The dome-shaped crown is formed from at least five sets of facets cut with monotonically decreasing angles to form a curved contour in accordance with a dome shape from the girdle to an apex of the dome-shaped crown. Each facet within the sets of facets is hexagonal in shape with opposing corners of the hexagon nested between adjacent facets. Support for the hexagonal shape with opposing corners of the hexagon nested between adjacent facets is found in FIG. 5.

The Stafford reference does not teach or suggest a dome-shaped crown formed from at least five sets of facets cut with monotonically decreasing angles to form a curved contour in accordance with a dome shape from the girdle to an apex of the dome-shaped crown. Stafford does not have at least five sets of facets in its crown. Again, Applicants traverse the Examiner's obviousness argument in view of the number of sets of facets. As discussed in paragraph [0036] of the specification, the curved contour of the dome-shaped crown requires a larger overall crown

area, more facets, and more angles in order to receive more light which is reflected by the diamond to create greater brilliance and scintillation. A sufficient number of sets of facets, i.e., at least five, is needed to form the dome shape. The Stafford cut is not a curved contour in accordance with a dome shape. Finally, the facets in Stafford are not hexagonal in shape with opposing corners of the hexagon nested between adjacent facets.

Claim 23 is believed to patentably distinguish over the Stafford reference. Claims 24-25, 27-28, and 56 are believed to be in condition for allowance as each is dependent from an allowable base claim.

Although not considered in the August 14, 2006, Office Action because of the restriction requirement, Applicant believes that claim 1, in its present form, falls within the elected species and should be subject to examination in the present application. Amended claim 1 recites a diamond comprising a pavilion having a plurality of facets disposed from a girdle to a culet. Each of the plurality of facets has a continuous flat surface extending from the girdle to the culet. An edge of a first adjoining facet contacts an edge of a second adjoining facet along a common radial boundary. A dome-shaped crown is disposed above the girdle. The girdle extends no further than a widest circumference of the dome-shaped crown and the pavilion extends no further than a widest circumference of the girdle. The dome-shaped crown is formed from at least five sets of facets cut with monotonically decreasing angles to form a curved contour in accordance with a dome shape from the girdle to an apex of the dome-shaped crown. Each facet within the sets of facets is hexagonal in shape with opposing corners of the hexagon

nested between adjacent facets. Support for the hexagonal shape with opposing corners of the hexagon nested between adjacent facets is found in FIG. 5. Each of the sets of facets has a monotonically decreasing surface area from the girdle to the apex of the dome-shaped crown. The apex of the dome-shaped crown has less surface area than each facet from the sets of facets.

The Stafford reference does not teach or suggest a dome-shaped crown formed from at least five sets of facets cut with monotonically decreasing angles to form a curved contour in accordance with a dome shape from the girdle to an apex of the dome-shaped crown. Applicant disagrees with the assessment that the Stafford cut is dome-shaped. But certainly it can be agreed that Stafford does not have at least five sets of facets cut to a curved contour, see paragraph [0029] of the specification. Stafford shows at most two sets of facets beyond the girdle. Claim 1 requires at least five rows of facets to achieve the curved contour in accordance with the dome-shape. The advantages of having the curved contour of the dome-shape is discussed in paragraph [0036] of the specification in that it provides a larger overall crown area, more facets, and more angles, which allows more light to be received and reflected by the diamond to create greater brilliance and scintillation.

Moreover, the Stafford reference does not teach or suggest each facet within the sets of facets as being hexagonal in shape with opposing corners of the hexagon nested between adjacent facets. The facets used by Stafford are certainly not hexagonal, nor are they nested between adjacent facets. Stafford discloses no such feature.

The Stafford reference does not disclose the apex of the dome-shaped crown as having less surface area than each facet

from the sets of facets. The Stafford cut is commonly known as a table-top, which has a greater surface area than any facet shown in the reference. The smaller apex, in combination with the dome-shaped crown, allows the diamond to have its dome-shape and curved contour, which creates more facets and angles to reflect light, see paragraph [0036] of the specification. Stafford does not show this feature.

Claim 1 is believed to patentably distinguish over the Stafford reference. Claims 3-5, 7-8, and 10 are believed to be in condition for allowance as each is dependent from an allowable base claim.

The Office Action rejects claims 18-19, 21, 27-28, and 30 under 35 U.S.C. 103(a) as being unpatentable over Stafford in view of Almaraz (US patent D443244). Claim 30 has been cancelled. Otherwise, Applicant objects to the Almaraz reference as being completely unrelated and nonanalogous prior art. Applicant submits that one of skill in the art of diamond cutting would not look to hubcaps for design ideas for diamonds and cut gemstones. Nonetheless, these dependent claims are believed to be in condition for allowance in view of the amendments to the respective base claims.

Applicants have added new claims 40-56, which are believed to patentably distinguish over the prior art of record. New claim 40 recites a cut gemstone comprising a pavilion having a plurality of facets disposed from a girdle to a culet, and a dome-shaped crown disposed above the girdle, wherein the girdle extends no further than a widest circumference of the dome-shaped crown and the pavilion extends no further than a widest circumference of the girdle. The dome-shaped crown is formed from a plurality of sets of facets cut with monotonically

decreasing angles to form a curved contour in accordance with a dome shape from the girdle to an apex of the dome-shaped crown. Each facet within the sets of facets being polygonal in shape with opposing corners of the polygon nested between adjacent facets.

The Stafford and Almaraz references, taken singularly or in combination, do not teach or suggest at least a dome-shaped crown formed from a plurality of sets of facets cut with monotonically decreasing angles to form a curved contour in accordance with a dome shape. Moreover, the Almaraz reference would not properly combine with Stafford to show each facet within the sets of facets as being polygonal in shape with opposing corners of the polygon nested between adjacent facets. The Almaraz reference is non-analogous prior art with respect to diamond design. Applicant submits that one of ordinary skill in the art would not have considered the Almaraz reference as there is absolutely no motivation to do so.

New claim 47 recites a diamond comprising a pavilion having a plurality of facets disposed from a girdle to a culet, and a dome-shaped crown disposed above the girdle, wherein the girdle extends no further than a widest circumference of the dome-shaped crown and the pavilion extends no further than a widest circumference of the girdle. The dome-shaped crown is formed from a plurality of sets of facets cut with monotonically decreasing angles to form a curved contour in accordance with a dome shape from the girdle to an apex of the dome-shaped crown.

The Stafford and Almaraz references, taken singularly or in combination, do not teach or suggest at least a dome-shaped crown formed from a plurality of sets of facets cut with monotonically decreasing angles to form a curved contour in

accordance with a dome shape. The Almaraz reference is non-analogous prior art with respect to diamond design and therefore would not properly combine with Stafford to show the features of claim 47. Again, there is no motivation to combine the references.

Applicant(s) believe that all information and requirements for the application have been provided to the USPTO. If there are matters that can be discussed by telephone to further the prosecution of the Application, Applicant(s) invite the Examiner to call the undersigned attorney at the Examiner's convenience.

The Commissioner is hereby authorized to charge any fees due with this Response to U.S. PTO Account No. 17-0055.

Respectfully submitted,
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